



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069
AUG 18 2016

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Article Number: 7009 0920 0000 8688 0851

Irma López
Executive Director
Compliance and Quality Control Directorate
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan, Puerto Rico 00916-9990

**Re: Compliance Evaluation Inspection
Guánica Wastewater Treatment Plant
NPDES Permit Number PR0020486**

Dear Mrs. López:

On June 27, 2016, the United States Environmental Protection Agency (EPA) conducted a Compliance Evaluation Inspection (CEI) at the Guánica Wastewater Treatment Plant. The purpose of the inspection was to assess PRASA's operational and maintenance practices at the facility.

Enclosed you will find a copy of the Water Compliance Inspection Report, which summarizes our findings during the CEI. Within forty five (45) calendar days of receipt of this letter, please respond with the actions PRASA has taken or will be taken to address the findings of the inspection.

Should you have any questions, feel free to contact me or Miguel A. Batista of my staff at (787) 977-5823.

Cordially,

Jaime A. Géliga
Chief
Municipal Water Programs Branch
Caribbean Environmental Protection Division

Enclosure

cc. Wanda García, EQB
Juan Rodríguez, PRASA
Jeannette Vélez, PRASA



United States Environmental Protection Agency
Washington, D.C. 20460
Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5 3 P R 0 0 2 0 4 8 6 11 12 1 6 0 6 2 7 17 18 C 19 R 20 1					
Remarks					
66					
Inspection Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved	
6 2 0 69 70 1 71 72 73 74 75 80					

Section B: Facility Data

Name and Location of Facility Inspected (for industrial users discharging to POTW, also include name and NPDES permit number) GUÁNICA WASTEWATER TREATMENT PLANT YAGUER ST. Guánica, P.R. 00653	Entry Time/Date 9:30 am 06/27/2016	Permit Effective Date 12/01/2008
	Exit Time/Date 12:10 pm 06/27/2016	Permit Expiration Date 11/30/2013
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) 787-821-2865 See attached report for on-site representative	Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number(s) Héctor Gierbolini, Executive Regional Director PRASA South Region	Contacted <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Operations & Maintenance	CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Self-Monitoring Program	<input checked="" type="checkbox"/> Sludge Handling/Disposal	Pollution Prevention
<input checked="" type="checkbox"/> Facility Site Review	Compliance Schedules	Pretreatment	Multimedia
<input checked="" type="checkbox"/> Effluent/Receiving Water	Laboratory	Storm Water	Other: Pump Stations

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

See attached report for findings.

Name(s) and Signature(s) of Inspector(s) Miguel A. Batista, Environmental Engineer	Agency/Office/Phone and Fax Numbers CEPD-MWPB (787) 977-5823 (ph) ; (787) 289-7104 (fax)	Date 08/18/2016
Signature of Management Q A Reviewer Jaime A. Géliza, Chief Municipal Water Programs Branch	Agency/Office/Phone and Fax Numbers CEPD-MWPB (787) 977-5840 (ph) ; (787) 289-7104 (fax)	Date 8/18/2016

**Summary of Findings/Comments
Water Compliance Inspection Report Form
(EPA Form 3560-3)**

COMPLIANCE EVALUATION INSPECTION

Facility Name: Guánica WWTP
NPDES Permit Number: PR0020486
PRASA Representative: Julio I. Fraticelli, Plant Operator
José M. Bosa, Plant Supervisor
Ivette Irizarry, Yauco Area Sewer System Manager

I. BACKGROUND

A Compliance Evaluation Inspection (CEI) was conducted on June 27, 2016 at the Guánica WWTP. The CEI consisted of an opening interview to discuss the purpose of the inspection and to request information about the facility. The inspection consisted of a site tour to assess the operational and maintenance conditions, document's review, and a closing interview to discuss preliminary findings. Finally, a grab sample of the effluent was collected to determine compliance with the effluent limitations established by the permit at the time of the inspection.

II. PLANT OPERATION AND MAINTENANCE

The Guánica WWTP consists of two treatment modules. One module is a 0.5 MGD activated sludge conventional package plant (Old Plant) and the second module is a 1.25 MGD Biological Nutrient Removal (BNR) treatment plant (New Plant). At the time of the CEI, the BNR module (New Plant) was in operation. The old plant was not in operation.

At the time of the inspection, Mr. Julio I. Fraticelli was acting as Plant Operator for the Guánica WWTP. Mr. Fraticelli has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2249 which expires on March 15, 2018.

Judge Order Prohibiting Reprisals was placed in the bulletin board of the facility as required by the Court.

III. FACILITY SITE REVIEW – SUMMARY OF FINDINGS

A. Preliminary Treatment

1. Bar Screens/Comminutors

i) The plant has two entrance channels: one channel has a bar screen, and the other channel has a comminutor. The bar screen was on stand-by mode. The comminutor was in service. The entrance channel with the bar screen is used when the comminutor goes out of service.

2. Influent Wet Well/Influent Pumps

i) The wet well was clean, and had no solids.

ii) The plant has six (6) influent pumps: three (3) for the old plant, and three (3) for the new plant. One out of three influent pumps for the new plant was out of service. The three units for the old plant were out of service.

3. Grit Removal Mechanism

- i) The facility has two (2) Pista type grit removal systems. Both units were out of service.
- ii) The two (2) screw conveyors used to collect the grit were on stand-by mode.

B. Secondary Treatment

- 1. Biological Nutrient Removal (BNR) – The BNR has two (2) clarifiers: unit # 1 was empty because it was clogged, and unit # 2 was in operation.
- 2. Clarifier # 2.
 - i) Uneveled weirs were observed at the clarifier. Effluent does not flow in a uniform pattern through the “V-type” effluent weirs. See figures # 1 and # 2 attached.
 - ii) The clarifier’s arm had its rubber broken.
 - iii) Algae, sludge bulking, and grease were observed at the anaerobic tank # 1.
 - iv) The mixer for the anaerobic tank # 1 was out of service.
 - v) Old sludge, and bubbling were observed at the anaerobic tank # 2.
 - vi) The mixer for the anaerobic tank # 2 was out of service.
 - vii) The anoxic tank # 1 had sludge bulking and grease.

C. Chlorination/De-chlorination Facilities

- i) There are three (3) chlorine contact chambers at the facility. The chlorine contact chamber # 1 was in operation. Grease was observed at the surface of the chlorine contact # 1. Units # 2 and # 3 were on stand-by mode.
- ii) The chlorine inventory at the time of the inspection consisted of four (4) - two thousand gallon pound chlorine cylinders (2,000 lbs): one (1) chlorine cylinder was in use, two (2) chlorine cylinders were empty, and one (1) chlorine cylinder was full.
- iii) The plant has two (2) chlorine leak detectors as reference instruments. When a chlorine leak was simulated, both units did work. The chlorine leak detectors were calibrated.
- iv) The exhaust fan was tested, and it was found operable.
- v) The automatic chlorine dosifier device was in operation. Its calibration will expire in October/2016.
- vi) The chlorine scale was in operation. Its calibration will expire in January/2017.

D. Sludge Handling

- i) The aerobic digester chamber was in operation. Solids accumulation was not observed at its surface.
- ii) The plant has two (2) unroofed sludge drying beds. At the time of the CEI, one unit was empty, and one unit was full.
- iii) The sludge belt filter press was out of service.

E. Alternate Power Units (APU)

- i) The new 750 KVA Alternate Power Unit (APU) has a 5,000-gallon diesel tank capacity.
- ii) The addition of water for the new APU’s radiator, still results unsafe for the operator who needs to stand on the APU’s motor to perform this task. This unit has no stairs or a safe mechanism to access it. This finding has been observed since the inspection conducted on May 7, 2013.
- iii) The power outage simulation was not performed.

F. Auto-Samplers

- i) This facility has two (2) auto-samplers. At the time of the CEI, the temperature inside influent auto-sampler was 4°C, and the temperature inside the effluent auto-sampler was 4°C. Both temperatures were within the acceptable range of less or equal to 6°C.
- ii) The influent and effluent sampling hoses looked clean.
- iii) The calibrations for the auto-sampler thermometers will expire in November 11, 2016.

G. Daily Sampling Meters

- i) The dissolved oxygen, the colorimeter, the turbidimeter, the pH and the residual chlorine meters were in good operational conditions.
- ii) The calibration for the above-mentioned equipment will expire in October/2016.

H. Flow Measuring Devices

- i) The primary flow measuring device being used at the facility is a Parshall flume.
- ii) A flow totalizer and a chart recorder were being used as secondary flow measuring devices.
- iii) The effluent flow totalizer was calibrated in April/2016.
- iv) The chart recorder's was calibrated in April/2016.

I. Effluent Quality

A grab sample of the effluent was taken by the operator at sampling point 001 during the inspection. Effluent was clear, no solids were observed. The results of the effluent sample taken during the inspection were as follows:

- a. Residual chlorine – 0.12 mg/l.
- b. pH – 7.40 S.U.
- c. Temperature - 29.0 °C.
- d. Dissolved oxygen (DO) – 7.42 mg/l.
- e. Settleable solids- 0.00.
- f. Turbidity – 1.90 NTU.

IV. RECORDS REVIEW

A. A copy of the NPDES permit was available at the plant.

B. Process Control, Sampling and Compliance Data Record

1. Copies of the daily sampling average reports were available for review.
2. A review of the DMRs for the period of May 2015 to April 2016 revealed the following exceedances:
 - May/2015 – Arsenic, Copper, Cyanide Free, Total Nitrogen.
 - June/2015 – Arsenic, Copper, Cyanide Free, Total Nitrogen.
 - July/2015 – Arsenic, Copper, Cyanide Free, Total Nitrogen.
 - August/2015 – Copper, Total Nitrogen.
 - September/2015 – Arsenic, Cyanide Free.
 - October/2015 – Copper.
 - November/2015 – No exceedances were reported.
 - December/2015 – No exceedances were reported.
 - January/2016 – No exceedances were reported.

- February/2016 – Zinc.
 - March/2016 – Enterococci Density.
 - April/2016 - Enterococci Density.
3. Copies of the monthly sampling itineraries and sampling records were available for randomly review. Documents appeared to be updated.
 4. Copies of the auto-samplers maintenance records and chain of custody data were available for review. Documents appeared to be updated.

C. Maintenance Records

1. Equipment operational status checklist (Form AAA-48) - The equipment operational status is being check on a daily basis.
2. At the time of the CEI, the operational status of the following equipment either out of service or in malfunction was listed in Form AAA-48 as follows:

EQUIPMENT	DATE	SAP #	REFERENCE #	COMMENT
Pump/Motor Degritter # 1	05/13/2015	208765	10330755	Malfunction
Paddle Drive Degritter # 1	05/13/2015	209655	10330704	Malfunction
Paddle Drive Degritter # 2	02/16/2015	209656	10314228	Broken transmission
Panel Degritter # 1	02/16/2015	213031	10314226	Out of service
Panel Degritter # 2	02/16/2015	213033	10314227	Out of service
Wet Well Sum Spare Pump	10/23/2014	1104906	101010950048	Got burned
Wet Well Sum New Pump	10/23/2014	208444	10101058235	Got burned
Motor-Blower # 1- old plant	11/30/2015	1116116	10366591	Oil leak
Motor-Blower # 2- old plant	11/30/2015	208952	10366593	Oil leak
Clarifier's Arm - Transmission (Original)	09/15/2015	209657	10352613	Broken rubber
Sum Pump Wet Well Plant's Influent Original 3	08/22/2015	1105306	10347941	Got burned
BNR Clarifier # 1 Building	11/30/2015	-----	10366548	Short circuit
Clarifier's Arm Transmission – BNR # 1	10/21/2015	209653	10360441	Broken rubber
Sum Pump Equalization Tank # 2	08/12/2015	208446	10343851	Got burned
Motor-Blower # 3	03/29/2015	208951	10322246	Out of service
Chlorine Room	04/03/2016	-----	10386580	Pipeline leak
Wet Pit BNR Building Influent Pumps	04/09/2016	-----	10387758	Illumination
Sum Pump Wet Pit Original # 1 - Influent	05/17/2016	1104905	10394901	Got burned
Sum Pump Wet Pit Original # 2 - Influent	04/26/2016	1104906	10390795	Got burned
Sum Pump Wet Pit New # 2 - Influent	02/19/2016	1124025	10378977	Got burned
Sludge Belt Filter Press	06/02/2016	1107285	10398208	Belt alignment
BNR Clarifier # 2 Building	01/06/2016	-----	10371991	Short circuit
Clarifier's Arm – BNR # 2	03/06/2016	209654	10381900	Broken rubber

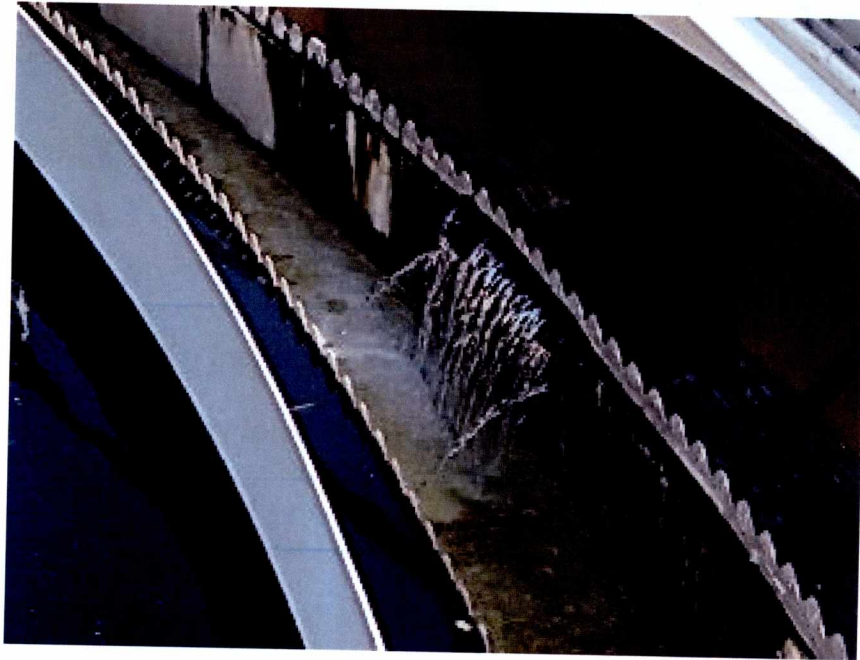
EQUIPMENT	DATE	SAP #	REFERENCE #	COMMENT
Mixer BNR Anaerobic # 1	06/20/2016	208007	10401057	Out of service
Mixer BNR Anaerobic # 2	03/27/2016	1112956	10384862	Out of service
Mixer BNR Anaerobic # 1	03/24/2016	1112952	10384844	Out of service
Mixer BNR Anaerobic # 2 Stage 1	03/24/2016	1112953	10384845	Out of service
Mixer BNR Anaerobic # 3	03/24/2016	1112958	10384846	No mixer
Mixer BNR Anaerobic # 4	03/24/2016	1112960	10384847	Out of service
Motor-Blower BNR # 3	04/04/2016 01/03/2016	208946	10386684 10372846	No motor Got tripped
Motor-Blower BNR # 4	03/22/2016	208947	10384460	No motor
Motor-Blower EQ # 1	05/25/2016	208948	10396602	Automatic mode out of service
Motor-Blower EQ # 2	06/09/2016	209949	10399438	Oli leak, broken pulleys
BNR Building Recirculation Pumps	01/15/2016	-----	10371943	Need a dike
Pump-Motor Recirculation BNR # 1	01/31/2016	208762	10375633	Oil leak
Pump-Motor Recirculation BNR # 3	06/25/2016	208764	10402149	Clogged
Interior Illumination	04/09/2016	-----	10387757	Some bulbs out of service
Chlorine contact chamber # 3	01/17/2016	-----	10373237	Open valve
Drainage valve anaerobic # 1 – BNR	03/06/2016	-----	10381905	Broken
Operator's Room A/C	05/24/2016	-----	10396387	Maintenance
Lexmark Photocopy machine	05/25/2016	-----	10396618	Out of service

D. Documentation available demonstrates that the last Chlorine Safety Management Refresher Training was taken by the operator on February 26, 2015; and February 24, 2016.

V. CONCLUSION

Please note that Part C.5 of Attachment I of the permit requires the permittee to properly operate and maintain all facilities and systems for collection and treatment (and related appurtenances) which are installed or used to achieve compliance.

Attachment



Guánica Waste Water Treatment Plant (CEI)
June 27, 2016
Figure # 1 – Clarifier # 2 – “V-type” weirs.



Guánica Waste Water Treatment Plant (CEI)
June 27, 2016
Figure # 2 – Clarifier # 2 – “V-type” weirs.